Amendments to the Claims

1. (Canceled)

2. (Currently Amended) A method of performing polymerase chain reaction comprising:

digesting reagents for polymerase chain reaction with a restriction endonuclease, wherein the reagents comprise Taq DNA polymerase, deoxynucleotide triphosphates, reaction buffer, and a pair of primers, wherein the restriction endonuclease does not cleave said pair of primers and said pair of primers have has no recognition sites for the restriction endonuclease;

inactivating said restriction endonuclease but not said Taq DNA polymerase;

mixing test sample and the reagents for polymerase chain reaction to form a mixture;

subjecting the mixture to conditions such that any templates present in the test sample which hybridize to both primers of the pair of primers are amplified;

detecting amplification product, wherein a detected amplification product indicates the presence of template which hybridizes to both primers in the test sample.

3. (Original) The method of claim 2 wherein the restriction endonuclease is AluI.

4. (Original) The method of claim 2 wherein the step of inactivating comprises heating to a temperature which inactivates the restriction endonuclease but not the Taq DNA polymerase.

5. (Original) The method of claim 2 wherein the test sample is a treated blood sample.

6. (Original) The method of claim 5 wherein the blood sample is from a patient suspected of systemic bacteremia.

7. (Currently Amended) The method of claim 2 wherein the primers have sequences as shown in ~~are PEU7~~ SEQ ID NO: 1 and ~~PEU8~~ SEQ ID NO: 2.

8. (Original) The method of claim 3 wherein the step of inactivating is performed at about 65° C for about 20 minutes.

9. (Original) The method of claim 2 wherein the step of detection employs an agarose gel.

10. (Original) The method of claim 9 wherein amplification product is labeled with ethidium bromide and visualized under ultraviolet light.

11. (Original) The method of claim 5 wherein the blood sample was treated to extract DNA therefrom.

12. (Original) The method of claim 2 wherein the sample is urine.

13. (Original) The method of claim 2 wherein the sample is cerebrospinal fluid.

14. (Original) The method of claim 2 wherein the primers hybridize to at least 10 eubacterial species' DNA in regions which are highly conserved.

15. (Original) The method of claim 2 wherein the primers hybridize to 16S RNA genes.

16. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by sequencing the amplification product.

17. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by restriction endonuclease digestion of the amplification product and determining sizes of products of said digestion.

18. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by amplification of the amplification product using primers which hybridize to a single eubacterial species 16S RNA.

19. (Original) The method of claim 2 further comprising the step of: identifying a bacterial species as a source of the templates by amplification of the templates in the test sample using primers which hybridize to a single eubacterial species 16S RNA.

20. (Original) The method of claim 2 wherein the Taq DNA polymerase is not active under the conditions used for the step of digesting.

21. (Original) The method of claim 2 wherein the amplified product comprises at least one recognition site for the restriction endonuclease.

22. (Original) The method of claim 2 wherein the amplified product comprises at least two recognition sites for the restriction endonuclease.

23. (Currently Amended) A method of performing polymerase chain reaction comprising:

digesting reagents for polymerase chain reaction with AluI restriction endonuclease, wherein the reagents comprise Taq DNA polymerase, deoxynucleotide triphosphates, reaction buffer, and a pair of primers having sequences selected from the group consisting of ~~PEU7 and PEU 8 (SEQ ID NO: 1 and 2)~~ (a) SEQ ID NO: 1 and 2; and ~~PEU 4 and 5 (SEQ ID NO: 3 and 4)~~ (b) SEQ ID NO:3 and 4;

inactivating said AluI restriction endonuclease by heating said reagents to a temperature which inactivates AluI but does not inactivate Taq DNA polymerase;

mixing a test sample of DNA isolated from a patient's blood sample and the reagents for polymerase chain reaction to form a mixture;

subjecting the mixture to conditions such that any templates present in the test sample which hybridize to both primers are amplified;

detecting an amplification product of 416 basepairs if the selected pair of primers has the

sequences of SEQ ID NO: 1 and 2, or detecting an amplification product of 811 basepairs if the selected pair of primers has the sequences of SEQ ID NO: 3 and 4, wherein a detected amplification product indicates the presence in the patient's blood of a template which hybridizes to both primers of the pair of primers ~~in the patient's blood~~, which indicates bacteremia in the patient.

24-32. (Canceled)